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ORIGINAL ARTICLE

Refusal for Dialysis by Acute and Cronic Renal Failiar Patients at Sheikh Ziad Hospital Rahim Yar Khan

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ABSTRACT

Background:- Patients suffering from advanced renal faillairare diagnosed in advanced stages of the disease but acute renal failure patients are diagnosed on early stage. Patients who are admitted in the ward are afraid of hemodialysis. All the patients who were suffering from end stage renal disease or acute renal failier having indications for hemodialysis were enrolled in the study. Patients were asked regarding acceptance or refusal of hemodialysis and the causes of their decisions Socioeconomic, demographic and clinical characteristics of the patients were compared between patients who underwent or refuse for hemodialysis. 150 patients were included in this study. Mean ages of the patients were 42.6 ± 15 years. Of all 99 (66%) patients refuse for dialysis while 51 (34%) patients were agreed for dialysis. Patients with AV fistula (30 Vs. 8 % P 0.021) and those with good socioeconomic background, well-educated group 63.1 vs. 39.4 (P=.031) underwent hemodialysis. Hemodialysis will save lives (85%) was a main cause for accepting this modality. Repeated session for dialysis in remaining life (56.4%), poor quality of life with hemodialysis (39%) and fear of severe pain and complication of needle incursion during hemodialysis (45%) were the most common factors causing refusal of hemodialysis. Treatment with homeopathic and herbal medications was more common cause for refusal of hemodialysis specially patients belongs to remote area and low socioeconomic area

Keywords: -End stage renal disease, Chronic Kidney disease, Hemodialysis, Acute kidney injury.

INTRODUCTION

Kidney disease weather acute or chronic kidney disease is emerging public health problem in the world. About 16% patients in Pakistan are suffering from chronic kidney disease[1, 2]. With the passage of time this percentage is increases due to hypertension and diabetic nephropathy[3]. Due to delayed diagnosis, inadequate management and poor follow-up these patients present with ESRD, at this stage no treatment to slowdown or revert course of CKD can be offered[4, 5] and need renal replacement therapy in form of Hemodialysis or transplant[6].At this stage Pregnancy related AKI, Kala Pathar (Paraphenylene diamin) poising and septicemia are other contributory factors which required Hemodialysis to save the patient's life[7]. Most of the patients, who will need transplant, will undergo for Hemodialysis before transplantation[8]. The requirement for renal replacement therapy and incidence of ESRD varies different part of world[9]. The treatment of ESRD patients or of patients suffering from AKI with medical indication is Hemodialysis. Renal transplant is better modality in ESRD patients. Most of the patients are not willing for Hemodialysis. Median survival without Hemodialysis is about six month[10]. In a study in Lahore Pakistan 67.3 % of the patients were not willing for first time hemodialysis[11].

Much work is required to know the exact cause and percentage of the patients refusing for Hemodialysis. Identification of cause, patient characteristics, responsible for accepting or refusal of hemodialysis may lead to better educational strategies to eliminate the patients fear and concerns about hemodialysis.

The objective of this study is to determine the frequency of refusal or acceptance of hemodialysis by AKI and ESRD patients with medical indications for hemodialysis.

METHODOLOGY

This was cross-sectional study with non-probability consecutive sampling conducted at department of nephrology Sheikh Zaid Hospital Rahim Yar Khan. Inform consent was taken from the patients sample size 150 calculated was with 95% confidence level. 10 % margin of error. This study was approved by institutional review board.

In study we included the patients between 14 to 80 years presented with AKI and ESRD with medical indication for dialysis.. AKI is defined as GFR <60 ml//mint/1.73m. for more than three months. ESRD is defined as, when life is not possible without renal replacement therapy and GFR <15 ml/mint/1.73m for three month duration/ or presence of chronic kidney disease documented on renal ultrasound[12]. Sonographically chronic renal failliar is considered if there is poor carticomedullary differentiation, increased echogenic kidneys or small size kidneys[13]. eGFR was calculated by CKD-EPI formula. The creatinine production is 20mg/kg in male and 16mg/kg in female[14]. Absolute indications for dialysis are following

a. Urimic encephalopathy
b. Urimic pericarditis
c. Fluid overload refractory to diauratic therapy
d. Refractory metabolicacidosis
e. Hyperkalemia with cardiac blocks
f. Refractory nausea vomiting[15], Decision to initiate was made by nephrologist. Patient on maintenance hemodialysis were excluded from the study. Risk and benefits of hemodialysis were told to all patients.

Detail medical history, laboratory data and medical record to gather information about patient's age, sex, residence, marital status, educational status, history of HTN, DM, IHD, CLD, Serum, Creatinine , Electrolytes.

Cardio vascular disease was defined as having previous coronary artery disease, or peripheral vascular disease. Patients were divided into two groups bases on income, lower income group with income less than Rs 15000/month and higher income group with income more than Rs 15000/month.

Statistical Analysis: Patients were divided into two groups on the basis of acceptance and refusal of hemodialysis. Categorical variables for compared using the squire test and continuous variable were compared using T test. In this study SPSS version 20.0 was used for Statistical analysis. For all $P \leq 0.05$ were considered statistically significant**.**

RESULTS

In this study 150 patients were enrolled. All patients had ESRD or AKI with medical absolute indication of Hemodialysis. . Mean ages of the patients were 42.6 ± 15 years. Of all 99 (66%) patients refuse for dialysis while 51 (34%) patients were agreed for dialysis. The mean duration of establishing of ESRD was 4.5± 0.4 months. Demographic, previous medical care and socioeconomic characteristics of the patient are shown in table 1.

Forty two percent of patients had consulted other nephrologist while 58% patients had consulted with homeopathic doctors, Hakeems, spiritual Preachers and quacks. Out of forty two percent, 55% consulted more than one kidney specialist. Forty five percent patients had advice for AV Fistula and 15% patients had AV Fistula in place.

Table 1:

Characteristics	Frequency %
Education	
None	45
Middle or Less	20
High School	15
College or Above	20
Income Class	
High Income Class	44
Lower Income Class	56
Co-morbid Condition	
HTN	40
DM	80
IHD	40
CLD	30
Type of Alternative therapy	
Hakeem	48
Homeopathic	48
Spiritual	30
Seen 1 Kidney specialist before	42
Seen more than 1 Kidney specialist before	58
AVF Advised	45
AVF Placed	15

Comparative features of the patients who agreed or refused for dialysis are shown in Table 2. Well-educated patients, patients belonging to higher income group and with AVF were willing for dialysis.

Table 2:

Characteristics	Patient Agree For Dialysis n=51	Patient Refused For Dialysis n=99	P Value
Age	42.6 + 15	46 + 12	0.23
Male	60	40	.71
Married	90	80	.41
Working	30	40	.15
Time since diagnosis of CKD	6.1 + .6	3.5+ .5	.63
Education Level	53	52	.95
DM	55	65	.35
HTN	90	88	.61
IHD	30	29	.86
CLD	25	35	.52
Seen by other kidney doctor	72	75	.61
Hemodialysis Advised	44	45	.54
AV Fistula Advised	45	47	.97
AV Fistula Placed	25	9	.02
Alternate Therapy used	55	54	.84

Table 3:

Reasons	Frequency (%)
Unable to afford Hemodialysis	15
Fear of Hemodialysis Catheter	16
Fear of AV fistula needles	15
No Hemodialysis center near residence	8
Permanent and lifelong Hemodialysis is unacceptable	25
Frequency of Hemodialysis per week is unacceptable	26.5
Poor heath and functional status of patient	11
Old age of patient	10
Perception of poor quality of life on Hemodialysis	17
Fear of complications on Hemodialysis	16
Fear of death with Hemodialysis	11
Adverse outcome in friend or family member with Hemodialysis	12
Patient desires second opinion	65
Patient desires to undergo preemptive kidney transplant	15

Note: 63 patients mentioned multiple reasons to refuse Hemodialysis

Of all 99 (66%) patients were refuse for dialysis. The major causes for dialysis refusal had shown in table no 3. Painful incursion of needle, higher cost of Hemodialysis and repeated sessions of dialysis were the major casus of refusal.

The reason for acceptance for Hemodialysis are shown in table no 4. Of all 51 (34%) accepted Hemodialysis because of trust in treating doctor, dialysis advice by multiple doctors and fear of death without dialysis.

Table 4:

Reasons	Frequency (%)
Trust in doctor's advice	60)
Advised by family member	19
Young age of patient	11
Patient provides social support to family	16
Exhausted all other options	18
Fear of death without Hemodialysis	14
Advised by multiple doctors	20
Adverse outcome in friend or family member without Hemodialysis	6
Will undergo kidney transplant after dialysis	38

Note: 65 patients cited multiple reasons for accepting Hemodialysis

DISCUSSIONS

This study showed that the patients with ESRD or AKI with absolute indication of dialysis 66% patients refused for dialysis and 34% patients accepted to undergo for dialysis. Well-educated patients, patients belonging to higher income group and with AVF were willing for dialysis. While illiterate patients belonging to remote areas refused for dialysis because they have more faith in Homeopathic treatment, Hakeems, quacks and spiritual treatment. Acceptance rate for Hemodialysis in our study is was comparative to that of 33% in a study by Anees et al[11]. The dialysis acceptance in our study was 34% in contrast to study in Spain where the acceptance rate of Hemodialysis was 61% because of higher literacy rate, socioeconomic values, cultural values and good health care services[17]. The average duration of establishing ESRD was 4.5 months while AKI patients were diagnosed during first hospital stay. Out of ESRD patients 42% consulted with nephrologist. And remaining 58% patients seek advice from Homeopathic doctors, Hakeems, quacks, and spiritual preachers. On third of the patients who consulted nephrologists has also visited more than one kidney specialists. Most of the patients were diagnosed late consistent with other local study[18]. Early referral to nephrologist is associated with better outcomes, slow progression of CKD and improves the survival percentage of patient[19]. Hence delayed diagnosis and referral is associated with more complication and poor outcomes. In this study we found that 58% of all patients had availed alternative therapy include hakeem medication, homeopathic medication, spiritual treatment and quacks medication. The same is also common in other parts of the world alternative medication use is present in 83.2% of all CKD patients in Nigeria[20]. Similarly in other studies the alternative medication use was seemed in 26%, 61% and 49% of Hemodialysis patients in India, USA and Germany respectively[21, 22, 23]. Herbal and dietary supplement use ratio was 34% to 52% of all patients[24, 25].

Most of the patients refuse for dialysis had fear of dialysis procedure like needle insertion, repeated session of hemodialysis and lifelong nature of hemodialysis, fear of deterioration of renal function[8]. Many patients also told that they had poor outcome with dialysis and death of the patient after start of dialysis in family members in past. The causes for poor outcomes on dialysis include delayed referral, poor nutrition, anemia, inadequate dialysis and lack of qualified nephrologist and dialysis technician at all dialysis centers[5, 6, 26, 27]. Proper counseling decreases the fear of dialysis and early referral to overcome deficiency of qualified nephrologist and dialysis technician to lead to better outcome.

This study has few limitations because this is a single center study with limited number of patients also there was no long follow-up of the patients who refused and accepted hemodialysis

Conflict of interest: none declared

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